AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A method of providing ~~one of a plurality of schedulers~~ a particular scheduler for a multitasking system for a processor, comprising:

choosing [[a]] the particular scheduler from a plurality ~~one of~~ the schedulers, wherein at least one of the plurality of schedulers is different from another one of the plurality of schedulers and wherein at least one of the plurality of schedulers selects processes to be run from a plurality of runable processes different from the plurality of schedulers;

setting a program counter to an address corresponding to code of the particular ~~one of the schedulers~~ scheduler; and

the processor executing code at an address corresponding to the program counter.

2. (Currently Amended) A method, according to claim 1, further comprising:

setting a stack pointer to an address corresponding to stack space for the particular ~~one of the schedulers~~ scheduler; and

the processor using the stack space at the stack pointer after executing code at the address corresponding to the program counter.

3. (Original) A method, according to claim 1, wherein all of the schedulers use the same stack.

4. (Currently Amended) A method, according to claim 1, wherein choosing [[a]]the particular ~~one of the schedulers~~ scheduler is based on parameters that vary according to run time conditions.

5. (Original) A method, according to claim 4, wherein at least one of the schedulers is for statistical code profiling.

6. (Original) A method, according to claim 4, wherein a first one of the schedulers is for start up conditions and a second one of the schedulers is for steady state operation.

7. (Currently Amended) A method, according to claim 1, wherein ~~swapping in one of the plurality of schedulers~~ choosing the particular scheduler is performed by setting up a return from an exception that causes the ~~one~~ scheduler to execute.

8. (Currently Amended) A method, according to claim 1, wherein setting a program counter includes modifying a variable that is modified according to the particular ~~one of the schedulers~~ scheduler that is chosen.

9. (Currently Amended) A method of scheduling tasks in a multitasking operating system, comprising:

choosing a particular scheduler from ~~one of~~ a plurality of schedulers, wherein at least one of the plurality of schedulers is different from another one of the plurality of schedulers and wherein at least one of the plurality of schedulers selects processes to be run from a plurality of runable processes different from the plurality of schedulers; and

running the particular scheduler to schedule tasks.

10. (Currently Amended) A method, according to claim 9, wherein choosing a particular ~~one of the plurality of schedulers~~ scheduler is performed by setting up a return from an exception that causes the ~~one~~ scheduler to execute.

11. (Currently Amended) A method, according to claim 9, wherein running the particular ~~one of the schedulers~~ scheduler includes setting a program counter to an address corresponding to code of the particular ~~one of the schedulers~~ scheduler.

12. (Currently Amended) A method, according to claim 11, wherein setting a program counter includes modifying a variable that is modified according to the particular ~~one of the schedulers~~ scheduler that is chosen.

13. (Currently Amended) A method, according to claim 9, further comprising:

setting a stack pointer to an address corresponding to stack space for the particular ~~one of the schedulers~~ scheduler; and

the processor using the stack space at the stack pointer after executing code at the address corresponding to the program counter.

14. (Original) A method, according to claim 9, wherein all of the schedulers use the same stack.

15. (Currently Amended) A method, according to claim 9, wherein choosing a particular ~~one of the schedulers~~ scheduler is based on parameters that vary according to run time conditions.

16. (Original) A method, according to claim 15, wherein at least one of the schedulers is for statistical code profiling.

17. (Original) A method, according to claim 15, wherein a first one of the schedulers is for start up conditions and a second one of the schedulers is for steady state operation.

18. (Currently Amended) Computer software in combination with a computer readable medium that provides ~~one of a plurality of schedulers~~ a particular scheduler for a multitasking system for a processor, comprising:

executable code, provided on a computer readable medium, that chooses [[a]]the particular scheduler from a plurality ~~one~~ of ~~the~~ schedulers, wherein at least one of the plurality of schedulers is different from another one of the plurality of schedulers and wherein at least one of the plurality of schedulers selects processes to be run from a plurality of runable processes different from the plurality of schedulers;

executable code, provided on a computer readable medium, that sets a program counter to an address corresponding to code of the particular ~~one of the schedulers~~ scheduler; and

executable code, provided on a computer readable medium, that causes the processor to execute code at an address corresponding to the program counter.

19. (Currently Amended) Computer software, according to claim 18, further comprising:

executable code, provided on a computer readable medium, that sets a stack pointer to an address corresponding to stack space for the particular ~~one of the schedulers~~ scheduler; and

executable code, provided on a computer readable medium, that causes the processor to use the stack space at the stack pointer after executing code at the address corresponding to the program counter.

20. (Previously Presented) Computer software, according to claim 18, wherein all of the schedulers use the same stack.

21. (Currently Amended) Computer software, according to claim 18, wherein executable code that chooses [[a]]the particular ~~one of the schedulers~~ scheduler uses parameters that vary according to run time conditions.

22. (Previously Presented) Computer software, according to claim 21, wherein at least one of the schedulers is for statistical code profiling.

23. (Previously Presented) Computer software, according to claim 21, wherein a first one of the schedulers is for start up conditions and a second one of the schedulers is for steady state operation.

24. (Currently Amended) Computer software, according to claim 18, wherein executable code that causes the processor to execute code at an address sets up a return from an exception that causes the ~~one~~ particular scheduler to execute.

25. (Currently Amended) Computer software, according to claim 18, wherein executable code that sets a program counter modifies a variable according to the particular ~~one of the schedulers~~ scheduler that is chosen.

26. (Currently Amended) Computer software in combination with a computer readable medium that schedules tasks in a multitasking operating system, comprising:

executable code, provided on a computer readable medium, that chooses [[a]]the particular scheduler from ~~one of~~ a plurality of schedulers, wherein at least one of the plurality of schedulers is different from another one of the plurality of schedulers and wherein at least one of the plurality of schedulers selects processes to be run from a plurality of runable processes different from the plurality of schedulers; and

executable code, provided on a computer readable medium, that runs the particular scheduler to schedule tasks.

27. (Currently Amended) Computer software, according to claim 26, wherein executable code that chooses [[a]] the particular ~~one of the plurality of schedulers~~ scheduler sets up a return from an exception that causes the ~~one~~ scheduler to execute.

28. (Currently Amended) Computer software, according to claim 26, wherein executable code that runs the particular ~~one of the schedulers~~ scheduler sets a program counter to an address corresponding to code of the particular ~~one of the schedulers~~ scheduler.

29. (Currently Amended) Computer software, according to claim 28, wherein setting a program counter includes modifying a variable that is modified according to the particular ~~one of the schedulers~~ scheduler that is chosen.

30. (Currently Amended) Computer software, according to claim 26, further comprising:

executable code, provided on a computer readable medium, that sets a stack pointer to an address corresponding to stack space for the particular ~~one of the schedulers~~ scheduler; and

executable code, provided on a computer readable medium, that causes the processor to use the stack space at the stack pointer after executing code at the address corresponding to the program counter.

31. (Previously Presented) Computer software, according to claim 26, wherein all of the schedulers use the same stack.

32. (Currently Amended) Computer software, according to claim 26, wherein executable code that chooses [[a]]the particular ~~one of the schedulers~~ scheduler uses parameters that vary according to run time conditions.

33. (Previously Presented) Computer software, according to claim 32, wherein at least one of the schedulers is for statistical code profiling.

34. (Previously Presented) Computer software, according to claim 32, wherein a first one of the schedulers is for start up conditions and a second one of the schedulers is for steady state operation.